



#20/gm
11.12.02

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Examiner: M. Medley

Attorney Docket No.: 013129/00025

This Declaration Under 37 C.F.R. §1.131 serves to establish completion of the invention in the above-referenced patent application in the United States on a date prior to the effective date of U.S. Patent No. 6,328,772 B1 ("*Scott*"), which has been cited by the Examiner in the above-referenced proceeding.

1. I am over the age of 18;
2. I received a Ph.D. degree in Physical Chemistry from Stanford University in 1974. I further received a B.A. degree in Chemistry and Math from Hope College in 1970.
3. I have been employed by Shell Oil Company ("Shell") since 1974. My first position at Shell was as a Research Scientist in Reaction/Environmental Engineering. Since that time, I have served as a Supervisor for Process Development, Technical Manager in Process Engineering, an Operations Manager in Crude/Diesel/Hydrogen/Sulfur, a Senior Staff Engineer to Fuels Regulatory Technical Support and an Engineering Advisor in Gasoline/Fuels Blending Technology. From 1989 to 1990, I was an "Executive-on-Loan" to the California Energy Commission.
4. The effective date of *Scott* is no earlier than July 28, 1999. The invention in the above-referenced patent application was reduced to practice earlier than July 28, 1999. To

establish the reduction to practice of the invention set forth in the above-referenced patent application prior to July 28, 1999, I hereby submit, as attached, *Exhibit A*. *Exhibit A* is a compilation of gasoline blends produced at Shell prior to July 28, 1999. It has been redacted in that the dates of production of the gasoline formulation have been blacked out. Highlighted in yellow, are the gasoline blends which have a RVP less than 7.0 and an ethanol content greater than 5.0 volume percent. Highlighted in pink are the gasoline blends which have a RVP less than 7.2 and an ethanol content greater than 9.6.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and believe are believe to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

DATED: October 4, 2002.

Charles A. Lieder

Chuck Lieder

			RFG Properties with 10% EtOH										On Is Online Analyzer Value / Off Is blended value with 10 % EtOH																		
			RVP	Oxy	EtOH	Benz	E200	Sulfur	Olaf	Arom	API Gr		On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	
Date	Batch	Tender	Grade	psi	wt%	vol%	vol%	wt%	vol%	vol%	60F		RON	RON	MON	MON	RVP	RVP	T10	T10	T50	T50	T90	T90	TEP	TEP	E200	E200	E300	E300	
	99E351	A32	SU	6.64	3.54	9.50	0.53	40.2	88.3	0.0023	1.4	23.3	57.42	97.24	100.20	88.44	89.50	5.77	6.64	158.4	143.1	227.0	224.4	309.5	308.3	401.8	406.9	30.0	40.2	86.8	88.3
	99E352	A34	RU	7.01	3.49	9.50	0.58	43.9	82.0	0.0197	2.9	25.0	56.71	91.06	95.60	83.62	85.10	5.67	7.01	146.8	138.6	226.8	221.5	338.9	334.0	421.6	428.4	34.9	43.9	80.4	82.0
	99N606	A-32	SU	6.77	3.47	9.50	0.53	40.3	89.4	0.0034	2.3	33.9	54.42	98.19	100.60	88.11	89.10	5.73	6.77	159.9	143.2	230.6	225.5	304.0	302.7	405.9	403.3	27.2	40.3	88.9	89.4
	99E364	A34	RU	7.30	3.56	9.50	0.71	45.6	76.5	0.0080	3.7	23.8	57.22	87.99	92.90	81.02	83.30	5.70	7.30	142.1	136.6	224.7	218.3	346.1	349.7	419.4	425.8	38.8	45.6	75.7	76.5
	99N620	A31	RU	7.09	3.58	9.50	0.68	45.7	77.0	0.0143	1.9	24.3	56.64	87.98	93.00	81.86	84.10	5.50	7.09	144.5	136.6	224.8	218.5	347.9	349.5	420.0	431.2	38.2	45.7	75.7	77.0
	99E375	A-32	SU	6.76	3.48	9.50	0.63	45.5	90.9	0.0070	4.6	33.0	54.17	97.14	99.60	86.56	88.00	5.60	6.76	150.1	139.1	222.0	213.1	299.1	294.6	404.5	403.5	34.4	45.5	90.0	90.9
	99E370	T/A28	SU	7.05	3.46	9.50	0.67	42.8	83.8	0.0036	2.1	25.7	57.12	96.34	99.50	87.35	88.30	5.60	7.05	148.7	138.4	227.2	223.9	325.6	325.8	413.6	419.0	32.4	42.8	83.2	83.8
	99L427	A-34	RU	7.05	3.55	9.50	0.52	45.3	79.7	0.0261	4.3	16.8	58.18	88.73	93.10	82.62	84.90	5.60	7.05	145.4	136.8	223.6	217.2	349.0	342.7	419.5	428.7	36.9	45.3	77.6	79.7
	99N641	A31	RU	7.11	3.52	9.50	0.70	45.0	81.5	0.0068	3.1	31.1	54.83	88.43	93.00	81.22	82.70	5.60	7.11	144.9	138.0	227.3	218.3	332.8	333.3	423.3	422.2	35.7	45.0	81.5	81.5
	99E386	A-28	SU	6.93	3.53	9.50	0.85	42.6	84.5	0.0083	3.8	28.2	55.57	96.67	99.20	87.03	88.30	5.50	6.93	148.6	139.1	228.3	224.6	326.8	324.1	416.1	416.7	31.9	42.6	83.2	84.5
	99E392	T/A34	RU	7.25	3.54	9.50	1.05	48.5	85.6	0.0106	2.4	24.8	57.42	90.60	94.60	84.14	84.50	5.78	7.25	146.0	135.3	218.6	206.2	320.5	318.2	415.2	412.3	38.7	48.5	84.9	85.6
	99E402	T/A31	RU	7.01	3.45	9.40	0.69	48.4	80.4	0.0108	2.8	27.8	56.77	87.92	93.90	82.13	83.50	5.65	7.01	142.6	136.8	217.2	206.2	342.4	341.1	420.8	419.9	41.8	48.4	79.6	80.4
	99N670	A-34	RU	7.08	3.50	9.50	0.77	46.1	78.8	0.0215	4.7	26.1	56.87	88.31	93.30	82.71	86.90	5.63	7.08	142.8	136.9	221.1	211.8	345.3	346.8	421.0	425.5	39.3	46.1	78.4	78.8
	99L480	A31	RU	7.22	3.51	9.72	0.78	49.9	82.7	0.0247	7.4	31.6	53.78	88.13	94.00	81.54	83.00	5.57	7.22	143.0	133.7	219.7	200.1	337.1	333.0	428.0	424.8	39.9	49.9	82.0	82.7
	99E416	A-32	SU	7.16	3.59	9.79	0.64	42.5	87.6	0.0116	4.0	28.5	56.54	96.33	99.30	82.27	88.20	5.75	7.16	149.7	139.3	226.4	223.0	313.5	313.5	410.4	405.9	31.7	42.5	86.5	87.6
	99N689	A34	RU	7.12	3.56	9.72	0.51	47.2	85.9	0.0213	3.1	25.1	56.39	90.11	93.60	82.74	84.40	5.72	7.12	145.3	135.5	221.5	210.0	324.1	318.2	420.0	408.6	37.2	47.2	84.4	85.9
	99N699	A31	RU	7.06	3.50	9.64	0.69	45.2	79.8	0.0260	1.2	30.8	54.68	89.43	93.50	82.50	84.80	5.70	7.06	145.4	137.5	227.2	219.6	341.0	345.0	424.1	422.8	36.3	45.2	79.4	79.8
	99L509	A-34	RU	7.32	3.54	9.59	0.85	46.5	79.6	0.0177	4.6	27.1	57.71	87.90	93.00	80.92	83.00	5.78	7.32	143.6	136.4	225.5	214.3	336.9	335.7	415.5	413.2	38.0	46.5	55.7	57.9
	99N721	A-28	SU	7.16	3.59	9.69		47.0	93.8	0.0088			58.53	96.22	99.20	87.38	88.20	5.70	7.16	151.0	138.4	215.1	208.4	279.8	275.5	373.0	369.5	37.7	47.0	92.2	93.8



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****In re Applicant:****CHARLES A. LIEDER
LLOYD E. FUNK
DAVID A. BARKER****Filed: April 21, 2000****Serial No.: 09/556,852****For: GASOLINE-OXYGENATE BLEND
AND METHOD OF PRODUCING
THE SAME****Group Art Unit: 1714****Examiner: M. Medley****Attorney Docket No.: 013129/00025****DECLARATION OF CHUCK LIEDER UNDER 37 C.F.R. 1.132**

I, Chuck Lieder, do hereby declare that:

1. I am over the age of 18;
2. I received a Ph.D. degree in Physical Chemistry from Stanford University in 1974. I further received a B.A. degree in Chemistry and Math from Hope College in 1970.
3. I have been employed by Shell Oil Company ("Shell") since 1974. My first position at Shell was as a Research Scientist in Reaction/Environmental Engineering. Since that time, I have served as a Supervisor for Process Development, Technical Manager in Process Engineering, an Operations Manager in Crude/Diesel/Hydrogen/Sulfur, a Senior Staff Engineer to Fuels Regulatory Technical Support and an Engineering Advisor in Gasoline/Fuels Blending Technology. From 1989 to 1990, I was an "Executive-on-Loan" to the California Energy Commission. Since 1990, I have been engaged in research and development relating to refinery blending and fuel compositions.
4. Southwest Research Institute ("SRI") is an independent, nonprofit, applied engineering and physical sciences research and development organization. To my knowledge, the Fuel Conformance Section of the Petroleum Products Research Department ("Fuel Conformance") of SRI is responsible for providing (i.) analytical and physical testing; and (ii.) evaluating the qualifications of fuels provided by major oil corporations.
5. *Exhibit A* and *Exhibit B*, copies attached, were issued to customers of Fuel Conformance, including Shell, in June, 1992 and summarize the findings of SRI for selected gasoline

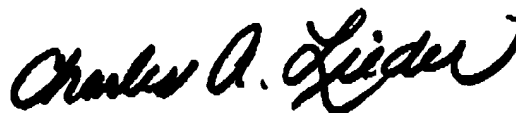
fuels in selected areas of the United States. Physical and chemical properties of the selected gasoline fuels as set forth in these Exhibits. I have reviewed *Exhibit A* and *Exhibit B* and am familiar with the grades of gasoline fuel blends in the public domain in June, 1992. In addition, since 1990, I have been well versed in the capacity of refineries to manufacture gasoline fuel blends.

6. The first datapoint in *Exhibit B* and the second datapoint of *Exhibit A* report a gasoline fuel containing 9.2 volume percent ethanol and a Reid Vapor Pressure (RVP) of 6.7. Based on my knowledge of refineries and blending practices of refineries, in order for a gasoline blend to be characterized as having 9.2 volume percent ethanol and a RVP of 6.7, the base gasoline would have had to have a RVP less than 5.5 to 5.7. In 1992, it is highly unlikely that a gasoline blend having a RVP less than 6.7 and an ethanol content of 9.2 volume percent because refineries did not have the necessary components to effectuate such blends with the properties of the cited blend in *Exhibit A* and *Exhibit B*. In particular, refineries in 1992 would not have been set up for the production of a gasoline blend having a RVP of 5.5 to 5.7.

7. The first datapoint in *Exhibit B* and the second datapoint in *Exhibit A* is an outlier and one versed in the field of gasoline fuels would readily conclude that this datapoint is an outlier for the June, 1992 time period. An outlier is a piece of data that appears to not belong within the range of data being reported. The cause of the outlier could be attributable to instrumentation error, keypunch error, transcription error or sample contamination. My conclusion that the datapoint is an outlier is further supported by the fact that no other sample reported in the study having an ethanol content of 8.3% or greater had a RVP of less than 8.9. As such, the RVP for this gasoline fuel is an outlier and outside of the range of data that would have been anticipated for the June, 1992 time period.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and believe are believe to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

DATED: October 4, 2002.



Chuck Lieder

Exhibit A

GASOLINE DATA

1992

JUNE

ASTM D-86 DISTILLATION

GR	RON	MON	R+M/2	OCT.	API	GRAV	10% 50% 90%	RVP	% O2	MTBE	ETBE	DIPE	TAME	ETOH
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MU	95.5	83.6	89.6	89.0	57.1	122	176 343	9.8	.0	.0	.0	.0	.0	9.3
	94.7	84.2	89.5	90.0	58.5	122	178 332	6.7	.0	.0	.0	.0	.0	9.2
	94.8	84.3	89.6	89.0	58.6	118	178 330	9.6	.0	.0	.0	.0	.0	9.4
	95.0	84.9	90.0	89.0	58.9	121	176 329	9.6	.0	.0	.0	.0	.0	8.3
MU	95.0	84.2	89.7	89.3	58.3	121	177 334	8.9	.0	.0	.0	.0	.0	9.0
PU	97.1	86.8	92.0	92.0	61.4	138	218 336	7.2	.0	.0	.0	.0	.0	.0
	95.6	85.8	90.7	91.0	58.4	132	230 327	8.6	.0	.0	.0	.0	.0	.0
	95.8	85.9	90.9	91.0	57.8	130	228 321	8.5	.0	.0	.0	.0	.0	.0
	98.4	87.3	92.9	93.5	58.2	126	206 312	8.8	.0	13.1	.0	.0	.0	.0
	96.2	86.1	91.2	91.0	55.1	127	228 325	8.2	.0	.0	.0	.0	.0	.0
	97.4	85.9	91.7	91.0	58.1	122	202 323	10.5	.0	.0	.0	.0	.0	8.3
PU	96.7	86.3	91.6	91.6	58.2	129	219 324	8.6	.0	2.2	.0	.0	.0	1.4
RL	94.8	84.6	89.7	90.0	58.3	122	184 335	9.7	.0	.0	.0	.0	.0	9.4
	94.5	84.5	89.5	89.0	58.2	124	189 338	9.7	.0	.0	.0	.0	.0	9.2
RL	94.6	84.5	89.6	89.5	58.2	123	187 337	9.7	.0	.0	.0	.0	.0	9.3
RU	92.3	82.1	87.2	87.0	57.8	122	197 344	8.6	.0	.0	.0	.0	.0	.0
	91.4	82.7	87.1	87.0	59.4	124	207 342	8.5	.0	.0	.0	.0	.0	.0
	91.9	83.1	87.5	87.0	59.4	125	204 335	8.7	.0	.0	.0	.0	.0	.0
	91.4	82.7	87.1	87.0	59.3	129	210 344	8.4	.0	.0	.0	.0	.0	.0
	92.0	83.4	87.7	87.0	60.3	125	202 332	8.7	.0	.0	.0	.0	.0	.0
	91.4	82.7	87.1	87.0	59.3	130	212 338	8.4	.0	.0	.0	.0	.0	.0
RU	91.7	82.8	87.3	87.0	59.2	126	205 339	8.5	.0	.0	.0	.0	.0	.0

EXHIBIT A

Gasoline Data from a Third Party, June 1992

	RVP	ETOH	CITY_NAME	COMPANY_NAME	GRADE	T10	T50	T90
	PSI	VOL%				(F)	(F)	(F)
REDACTED	6.7	9.2	REDACTED	REDACTED	MU	122	178	332
REDACTED	6.9	10.2	REDACTED	REDACTED	PU	139	217	309
REDACTED	6.9	9.9	REDACTED	REDACTED	MU	136	215	325
REDACTED	6.9	9.9	REDACTED	REDACTED	PU	136	219	314
REDACTED	7	5.7	REDACTED	REDACTED	MU	131	195	306
REDACTED	7	5.7	REDACTED	REDACTED	PU	136	201	305
REDACTED	7	5.8	REDACTED	REDACTED	MU	130	200	305
REDACTED	7	5.7	REDACTED	REDACTED	PU	132	198	300
REDACTED	7	5.8	REDACTED	REDACTED	RU	126	198	303
REDACTED	7	9.6	REDACTED	REDACTED	PU	139	223	304
REDACTED	7	10	REDACTED	REDACTED	MU	137	217	327
REDACTED	7	10.1	REDACTED	REDACTED	RU	134	208	338
REDACTED	7.1	9.6	REDACTED	REDACTED	MU	123	178	340
REDACTED	7.1	8.4	REDACTED	REDACTED	MU	138	197	308
REDACTED	7.1	8.7	REDACTED	REDACTED	PU	138	207	303
REDACTED	7.1	8.6	REDACTED	REDACTED	RU	140	194	311
REDACTED	7.1	5.7	REDACTED	REDACTED	RU	134	197	315
REDACTED	7.1	10.1	REDACTED	REDACTED	RU	138	218	340
REDACTED	7.2	9.6	REDACTED	REDACTED	RU	132	187	356
REDACTED	7.2	10.1	REDACTED	REDACTED	MU	120	161	335
REDACTED	7.2	7.7	REDACTED	REDACTED	PU	129	206	361
REDACTED	7.2	10.1	REDACTED	REDACTED	MU	132	203	358
REDACTED	7.2	10.1	REDACTED	REDACTED	RU	135	214	344
REDACTED	7.3	7.7	REDACTED	REDACTED	PU	141	221	325
REDACTED	7.3	7.4	REDACTED	REDACTED	PU	139	214	323
REDACTED	7.3	7.2	REDACTED	REDACTED	PU	138	231	345
REDACTED	7.3	7.1	REDACTED	REDACTED	RU	134	196	348
REDACTED	7.4	9	REDACTED	REDACTED	PU	140	239	328
REDACTED	7.4	9.3	REDACTED	REDACTED	MU	135	212	325
REDACTED	7.5	7.2	REDACTED	REDACTED	PU	133	218	340
REDACTED	7.5	10.5	REDACTED	REDACTED	RL	126	175	331
REDACTED	7.5	7.5	REDACTED	REDACTED	MU	130	207	349
REDACTED	7.5	8	REDACTED	REDACTED	PU	136	216	317
REDACTED	7.5	10	REDACTED	REDACTED	MU	133	203	333
REDACTED	7.5	10.1	REDACTED	REDACTED	PU	140	229	321
REDACTED	7.5	10	REDACTED	REDACTED	PU	140	217	
REDACTED	7.6	8.87	REDACTED	REDACTED	RU	121	200	305
REDACTED	7.6	8.4	REDACTED	REDACTED	PU	136	215	330
REDACTED	7.6	7.5	REDACTED	REDACTED	PU	138	235	338
REDACTED	7.6	8.4	REDACTED	REDACTED	PU	137	234	334
REDACTED	7.6	10.3	REDACTED	REDACTED	MU	130	190	321
REDACTED	7.6	11.6	REDACTED	REDACTED	PU	137	217	336
REDACTED	7.6	11	REDACTED	REDACTED	RU	131	187	331
REDACTED	7.6	10.1	REDACTED	REDACTED	RU	130	197	340
REDACTED	7.6	10.2	REDACTED	REDACTED	RU	133	198	350
REDACTED	7.6	10.8	REDACTED	REDACTED	RU	134	199	320
REDACTED	7.6	10.3	REDACTED	REDACTED	PU	137	214	331
REDACTED	7.6	10.5	REDACTED	REDACTED	PU	139	219	338
REDACTED	7.6	10.5	REDACTED	REDACTED	PU	134	211	327
REDACTED	7.6	10.5	REDACTED	REDACTED	PU	139	212	304